Programme Structure

School of Dental Sciences
MDS
(Pediatric and Preventive Dentistry)

Programme Code: SDS0107
Batch :2024-2027

1.1 Vision, Mission and Core Values of the University

Vision of the University

To serve the society by being a global University of higher learning in pursuit of academic excellence, innovation and nurturing entrepreneurship.

Mission of the University

Transformative educational experience
Enrichment by educational initiatives that encourage global outlook
Develop research, support disruptive innovations and accelerate entrepreneurship
Seeking beyond boundaries

Core Values

Integrity
Leadership
Diversity
Community

1.2 Vision, Mission and Core Values of the School

Vision of the School

To serve the society by being a global center in pursuit of academic and professional excellence in the field of dentistry.

Mission of the School

Creating a stimulating and flexible learning environment amongst the faculty and students

Strongly promoting research, innovation, clinical excellence

Promote and inculcate ethical values and continued betterment in the dental profession and in all facets of life.

Core Values

Integrity

Leadership

Diversity

Community

1.3 Programme Educational Objectives (PEO)

PEO1: Be able to provide both primary and comprehensive, preventive and therapeutic oral health care including interceptive orthodontics for infants, children and adolescent.

PEO2: Be able to instill a positive attitude and behaviour in children towards oral health.

PEO3: Be able to guide and counsel the parents/guardian in regards to various

treatment modalities including different facets of preventive dentistry.

PEO4: Be able to manage and treat the physically and mentally challenged / disabled children effectively and efficiently, tailored to the needs of individual requirement and conditions.

PEO5: Maintain high standard of professional ethics and conduct and apply these in all aspects of professional life.

1.3.2 Programme Articulation Matrix::

PEO Statements	School Mission 1	School Mission 2	School Mission 3
PEO1:	3	3	3
PEO2:	2	-	1
PEO3:	2	-	1
PEO4:	2	2	3
PEO5:	2	-	-

1. Slight (Low) 2. Moderate (Medium) 3. Substantial (High)

1.3.3 Programme Outcomes (PO's)

PO1: Demonstrate an in- depth art and science of pediatric dentistry.

PO2: Provide preventive and therapeutic oral health care for infants and children through adolescence including those with special health care needs

PO3: Employ pediatric dental procedures and behavioral management techniques in Ambulatory and hospital settings.

PO4: Work collaboratively with clinicians, parents and other medical specialties advocating for the health of the child patient.

PO5: Execute a research project based on a thorough knowledge of literature, data collection and analysis.

PO6: Maintain high standard of professional ethics and conduct and apply these in all aspects of professional life.

PSO1: Adequate knowledge of scientific foundations on which pediatric dentistry is based which includes growth and development, structure and function of the teeth, mouth and jaws and associated tissues both in health and disease.

PSO2: To prepare a student who is proficient in providing preventive and therapeutic oral health care for infants and children through adolescence including those with special health care needs in institution, private or public health settings.

PSO3: Be able to instill a positive attitude and behavior in children towards oral health and understand the principles of prevention and preventive dentistry right from birth to adolescence.

PSO4: Be able to guide and counsel the parents in regards to various treatment modalities.

PSO5: Acquire skill to prevent and manage complication if encountered and to carry out required investigative procedures and ability to interpret laboratory findings.

1.3.4 Programme Articulation Matrix:

	PEO1	PEO2	PEO3	PEO4	PEO5
PO1	3	3	3	3	2
PO2	3	1	1	3	-
PO3	2	3	1	2	-
PO4	-	-	3	2	-
PO5	1	1	1	2	-
PO6	-	-	-	-	3
PSO1	3	-	-	3	3
PSO2	1	2	1	3	-
PSO3	-	3	2	1	-
PSO4	1	2	3	1	-
PSO5	3	-	-	2	-

1. Slight (Low) **2. Moderate (Medium)** **3. Substantial (High)**

1.3.5 Programme Articulation Matrix:

Course	Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5
CO1		**3**	**2**	**2**		**2**	**2**	**3**	**2**	**1**	**1**	**1**
CO2	Applied Basic Sciences	**2**	**2**	**1**	**3**			**2**	**3**	**2**	**1**	**1**
CO1	Clinical Pedodontics	**3**		**3**		**1**		**2**	**1**	**3**	**3**	
CO2		**2**	**2**		**3**			**1**	**2**			**3**
CO3		**1**	**2**	**1**		**2**	**1**	**3**	**2**	**1**	**1**	**1**
CO1	Preventive and Community Dentistry as applied to pediatric dentistry.	**3**	**2**	**2**		**1**	**2**	**3**	**2**	**1**	**1**	**1**
CO2		**2**	**1**	**1**	**1**	**1**	**2**	**3**	**2**	**2**	**1**	
CO1	Essay **(**Descriptive and analytic type questions)	**3**	**2**	**2**		**2**	**1**	**3**	**2**	**1**	**1**	**1**
CO2		**2**	**1**	**3**	**1**	**3**	**1**	**2**	**1**		**1**	**2**

1. Slight (Low) 2. Moderate (Medium) 3. Substantial (High)

Programme Structure
School of Dental Sciences
Master of Dental Surgery (MDS)
Batch: 2024-2027

S. No.	Paper ID	Subject Code	Subjects	Teaching Load			Type of Course[1]: 1. CC 2. AECC 3. SEC 4. DSE
				L	T	P	
THEORY SUBJECTS							
1.	MDS307	MDS307	Pediatric & Preventive Dentistry	**0**	**3**	**45**	**CC**
Practical/Viva-Voce/Jury							
2.	MDS307	MDS307	Pediatric & Preventive Dentistry	**0**	**3**	**45**	**CC**

1

2.1 Module: Syllabus for Theory Subjects

CO		SCHOOL OF DENTAL SCIENCES Batch: 2022-2025	
Program:		**MASTER OF DENTAL SURGERY- PEDIATRIC & PREVENTIVE DENTISTRY**	
1	Course Code	MDS307	
2	Credits	NA	
3	Contact Hours (L-T-P)	0-3-45	
4	Course Type	Compulsory (Core)	
5	Course Objective	1. Be able to provide both primary and comprehensive, preventive and therapeutic oral health care including interceptive orthodontics for infants, children and adolescent. 2 Be able to instill a positive attitude and behaviour in children towards oral health and be able to guide and counsel the parents/guardian in regards to various treatment modalities including different facets of preventive dentistry. 3 Be able to manage and treat the physically and mentally challenged / disabled children effectively and efficiently, tailored to the needs of individual requirement and conditions. 4 Maintain high standard of professional ethics and conduct and apply these in all aspects of professional life.	
6	Course Outcomes	**CO1**- Student should be able to understand applied Anatomy, genetics, Applied Physiology, Applied Pathology, Nutrition, Dietics, Growth & Development, Cariology and Fluoride. **CO2**-Student will be get acquainted with Dental health concepts, Effects of civilization and environment, Dental Health delivery system, Public Health measures related to children along with principles of Pediatric Preventive Dentistry and to develop an attitude of counselling in Pediatric Dentistry **CO1**-Student should be competent to treat dental diseases which are occurring in child patient and should be able to manage to repair and restore the lost/ tooth structure to maintain harmony between both hard and soft tissues of the oral cavity. **CO2**-Student should be able to manage the disabled children effectively and efficiently, tailored to the needs of individual requirement and conditions. **CO3**-Student should be able to acquire skills in managing efficiency life threatening condition with emphasis on basic life support measure. **CO1**-Student should be able to understand the principles of prevention and preventive dentistry right from birth to adolescence	

		CO2-Student should be able to guide and counsel the parents in regards to various treatment modalities including different facets of preventive dentistry **CO1-**For a given case, the student after a critical assessment should able to adopt new methods and techniques of Pediatric dentistry that is developed time to time, based on scientific researches, which are in the best interest of the child and patient. **CO2-**Student should able to respect child patient's rights and privileges, including child patient's right to information and right to seek a second opinion.		
7	Course Description	Pediatric and Preventive Dentistry deals with prevention and treatment of oral and dental ailments that may occur during childhood. The objective of the post-graduate training is to train a student so as to ensure higher competence in both general and special area of interest and prepare him or her for a career in teaching, research and speciality practice.		
8	Outline syllabus			CO Mapping
	UNIT 1	**Applied basic sciences**		
	A	Topic 1	Applied anatomy and genetics	CO1
	B	Topic 2	Applied physiology, pathology, microbiology, nutrition and dietics	CO1
	C	Topic 3	Dental plaque	CO2
	UNIT 2	**Growth and development, child psychology and behaviour management, child abuse and neglect.**		
	A	Topic 1	Growth and development of prenatal and postnatal development of craniofacial structures.	CO1
	B	Topic 2	Development and classification of behaviour ,personality, intelligence in children, theories of child psychology, stages of psychological child development	CO2
	C	Topic 3	Behavioral management-pharmacological and	CO3

			non- pharmacological method, child abuse and neglect.	
	UNIT 3	**Clinical pedodontics**		
	A	Topic 1	Case history recording, setting up of pedodontic and preventive dentistry clinic dental radiology related to paediatric dentistry.	CO1
	B	Topic 2	Paediatric operative dentistry and endodontics, dental materials, interceptive orthodontics, oral habits, traumatic injuries in children.	CO1
	C	Topic 3	Deep sedation and general anaesthesia in pediatric dentistry, oral manifestation of systemic condition in children and their management, management of minor oral surgical procedures in children, pediatric medicine and clinical pathology, congenital abnormalities in children ,dental emergencies in children and their management, gingival and periodontal diseases in children and their management.	CO1, CO2, CO3
	UNIT 4	**Preventive Pedodontics**		
	A	Topic 1	Preventive and community dentistry as applied to paediatric dentistry, preventive pedodontics, fluorides, comprehensive infant oral health care/comprehensive cleft care, cariology.	CO2
	B	Topic 2	Dental health education and school	CO2, CO1

			dental health programmes, epidemiology.		
	C	Topic 3	Principles of biostatics and research methodology and understanding of computers and photography.		CO1
	UNIT 5	**Medically compromised child, prosthetic consideration in paediatric dentistry, emerging concepts in pediatric dentistry.**			
	A	Topic 1	Medically compromised child.		CO3
	B	Topic 2	Prosthetic consideration in paediatric dentistry		CO1
	C	Topic 3	Emerging concepts in pediatric dentistry.		CO1
1	**Course evaluation**	Attendance	Minimum 75% is Needed for both theory and clinical practical		
		Quizzes	Taken in every 2 months		
		Presentations	Seminars, Journal clubs, Case Presentations, Thesis and Library Dissertation Presentation		
		Any Other	Project based learning, short studies,		

			Discussions,Assignments			
		End Term examination	700 Marks	Theory	1st year – 100 marks	3rd year - 300 marks
				Practical		3rd year - 300 marks
2	Text book/s*					

SR.	Author	Title
1	Pinkham,JR	Pediatric Dentistry infancy through adolescence
2	Mc Donald,RE	Dentistry for the child and adolescent
3	Ghai,OP	Ghai essential paediatrics
4	Goran Koch	Pedodontics Clinical Approach
5	Welbury	Pediatric Dentistry
6	Cameron,Angus	Handbook of pediatric dentistry
7	Stephen Wei	Pediatric Dentistry Total Patient Care
8	Curzon,MEJ	Kennedy's Pediatric Operative Dentistry
9	Stewart	Pediatric Dentistry
10	Mathewson,RJ	Fundamentals of pediatric dentistry
11	Pinkham,JR	Pediatric Dentistry
12	Nikiforuk	Understanding Dental Caries Vol 1
13	Scully,Crispian	A colour atlas of orofacial health: Diseases in children and adolescents
14	Welburg,Richards	Paediatric dentistry
15	Nikiforuk	Understanding Dental Caries Vol 2
16	JJ.Murray& Rug-Gunn	Fluorides in Caries Prevention
17	Fejerskov& Burt	Fluorides in Dentistry
18	Fejerskov&Thylstrup	Text book of Clinical Cariology
19	Mathewson	Fundamentals of Pediatric Dentistry
20	NewBurn	Cariology
21	Marwah,Nikhil	Comprehensive Pediatric Dentistry
22	Tandon,Shobha	Textbook of pedodontics
23	Chadwick,BL	Child Taming : How to manage children in

		dental practice
24	Ripa	Management of Dental Behaviour in children
25	Shearer	Treatment planning in primary dental care
26	Gutmann,James I	Problem solving in endodontics
27	Kaban,Leonard B	Pediatric oral and maxillofacial surgery
28	Kennedy's & Curzon	Pediatric operative dentistry
29	Koch,Goran	Pediatric dentistry : A clinical approach
30	Walker,W.allan	Nutrition in pediatrics
31	Casamassimo,Paul S	Pediatric dentistry infancy through adolescence
32	Sanger,Roger G	Clinical management of child abuse and neglect
33	Wright,Gerald Z	Behaviour management in dentistry for children
34	Finn	Clinical pedodontics
35	Muthu,MS	Pediatric dentistry : Principles and practices
36	Cameron,Angus C	Hand book of pediatric dentistry
37	Dean.Jeffery A	Mc Donald and Avery's dentistry for the child and adolescent
38	Joseph Sim	Minor tooth movement in children

3	Other References	TED learning EBSCOHOST Various scientific articles from various sources

Mapping

Course	Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5
CO 307.1.1	MDS 307	3	2	2		2	2	3	2	1	1	1
CO 307.1.2	MDS 307	2	2	1	3			2	3	2	1	1
CO 307.2.1	MDS 307	3		3		1		2	1	3	3	
CO 307.2.2	MDS 307	2	2		3			1	2			3
CO 307.2.3	MDS 307	1	2	1		2	1	3	2	1	1	1
CO 307.3.1	MDS 307	3	2	2		1	2	3	2	1	1	1
CO 307.3.2	MDS 307	2	1	1	1	1	2	3	2	2	1	
CO 307.4.1	MDS 307	3	2	2		2	1	3	2	1	1	1
CO 307.4.2	MDS 307	2	1	3	1	3	1	2	1		1	2

1-Slight (Low) **2-Moderate (Medium)**

3-Substantial (High)